

Better Buildings Residential Network Peer Exchange Call Series:

The Increased Focus on Health in Buildings July 9, 2020



Agenda and Ground Rules

- Agenda Review and Ground Rules
- ASHRAE Guidance for Building Operations During COVID-19
- Opening Poll
- Residential Network Overview and Upcoming Call Schedule
- Featured Speakers:
 - Sara Hayes, American Council for an Energy-Efficient Economy
 - Kalli Solby, International WELL Building Institute
 - Ruth Ann Norton, Green & Healthy Homes Initiative
- Open Discussion
- Closing Poll and Announcements

Ground Rules:

- 1. Sales of services and commercial messages are not appropriate during Peer Exchange Calls.
- Calls are a safe place for discussion; please do not attribute information to individuals on the call.

The views expressed by speakers are their own, and do not reflect those of the Dept. of Energy.





Better Buildings Residential Network

Join the Network

Member Benefits:

- Recognition in media and publications
- Speaking opportunities
- Updates on latest trends
- Voluntary member initiatives
- One-on-One brainstorming conversations

Commitment:

Members only need to provide one number: their organization's number of residential energy upgrades per year, or equivalent.

Upcoming Calls (2nd & 4th Thursdays):

- Jul 23: Energy Efficiency Funding for Residential Programs:
 Challenges and Opportunities
- Aug 9: The State of Energy Efficiency Programs: Where Are We Now?

Peer Exchange Call summaries are posted on the Better Buildings website a few weeks after the call

For more information or to join, for no cost, email bbresidentialnetwork@ee.doe.gov, or go to energy.gov/eere/bbrn & click Join







Sara Hayes

American Council for an Energy-Efficient Economy



Opportunities at the Health and Energy Nexus

Sara Hayes
Director of Health and Environment, ACEEE

July 9, 2020





The American Council for an Energy-Efficient Economy is a nonprofit 501(c)(3) founded in 1980. We act as a catalyst to advance energy efficiency policies, programs, technologies, investments, & behaviors.

Our research explores economic impacts, financing options, behavior changes, program design, and utility planning, as well as US national, state, & local policy.

Our work is made possible by foundation funding, contracts, government grants, and conference revenue.

aceee.org @ACEEEdc



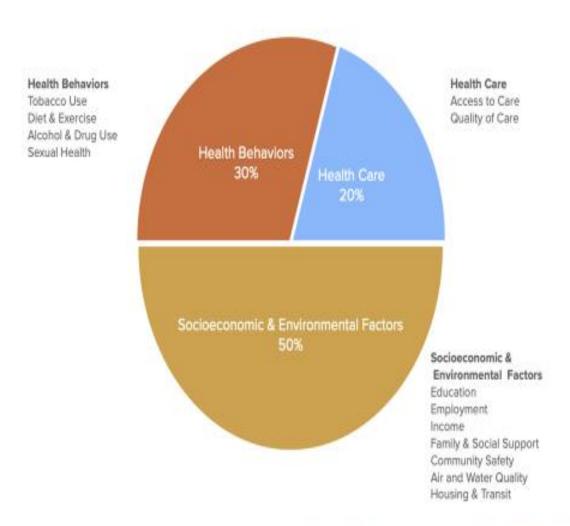
Questions to Consider

How does our work relate to health?

What are the opportunities this creates for our industry?



Determinants of Health



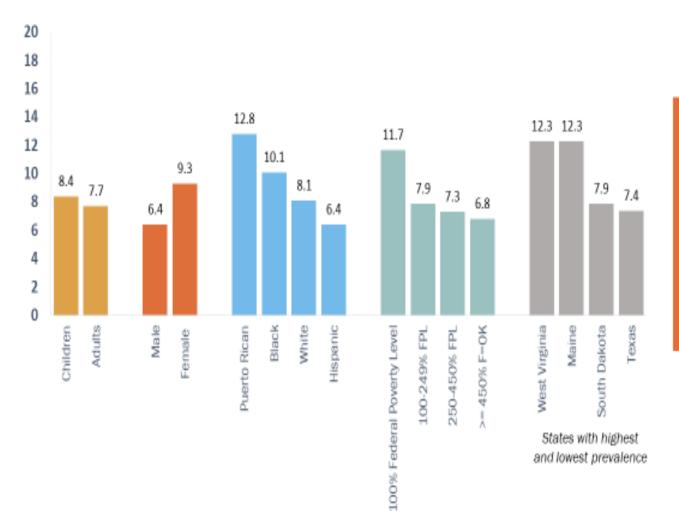


Burdens of the Built Environment Exacerbate Health Inequities

- Low-income populations and people of color live in homes with inadequate housing conditions at disproportionately high rates
- Many of the chronic diseases exacerbated by inadequate housing conditions disproportionately fall on low-income populations and people of color
- Children experience asthma at higher rates than adults
 - asthma risk is associated with home exposures (e.g., moisture, mold, temperature variations, pests)



Current Asthma Prevalence by Age Group, Sex, Race and Ethnicity, Poverty Status, Geographic Region, and Place of Residence: United States, 2017



Females, blacks, and Puerto Ricans are more likely to have asthma.

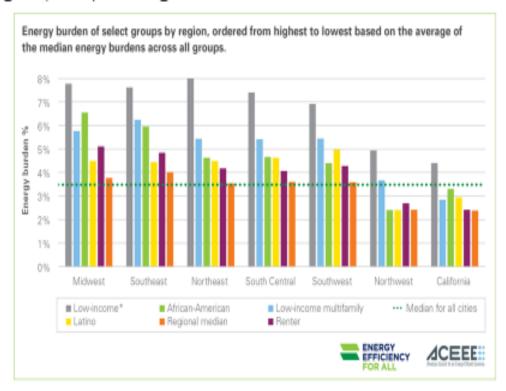
People with lower annual household income were more likely to have asthma.

West Virginia and Maine have the highest asthma prevalence, Texas and South Dakota have the lowest



Inequitable Energy Burdens

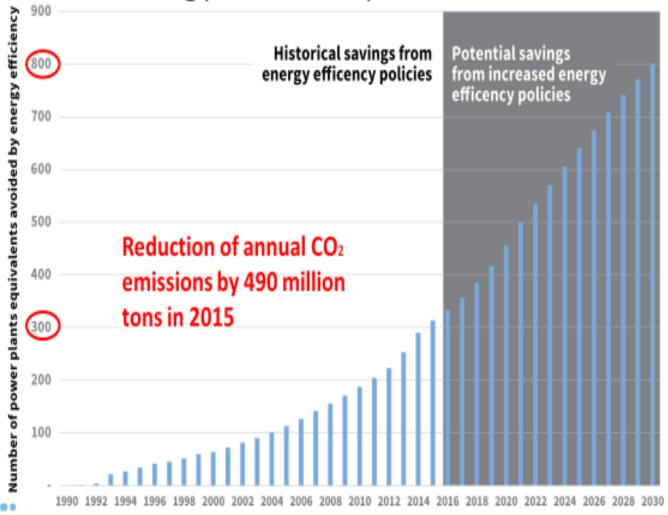
Energy burden is a household's energy spending (electricity, gas, and/or other heating fuel) as a percentage of total household income.



This affect's a household's ability to afford quality housing or pay for food and medicine. Having limited funds for a healthy diet, health care, and a comfortable home also increases the risk of chronic disease for struggling individuals and families.

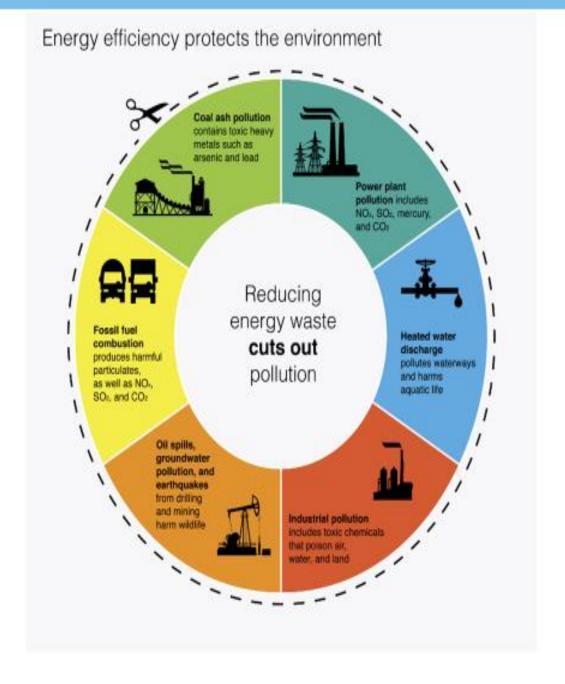


Power Plant Equivalents Avoided from Energy Efficiency





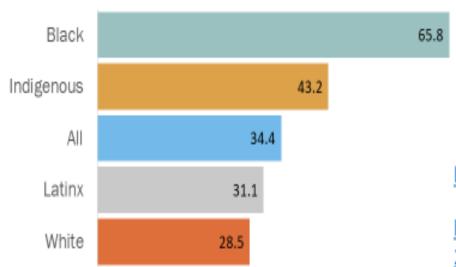
Source: http://aceee.org/research-report/u1604





COVID-19

COVID-19 Deaths per 100,000 People of Each Group in United States, as of 6/23/20



COVID-19 has disproportionately impacted environmental justice communities

 Long-term air pollution exposure increases the chance of death by COVID-19 by 15%

https://www.apmresearchlab.org/covid/deaths-by-race

https://www.medrxiv.org/content/medrxiv/early/2020/04/27/ 2020.04.05.20054502.full.pdf

https://www.aceee.org/blog-post/2020/06/energy-efficiencysector-can-help-address-longstanding-health-inequities

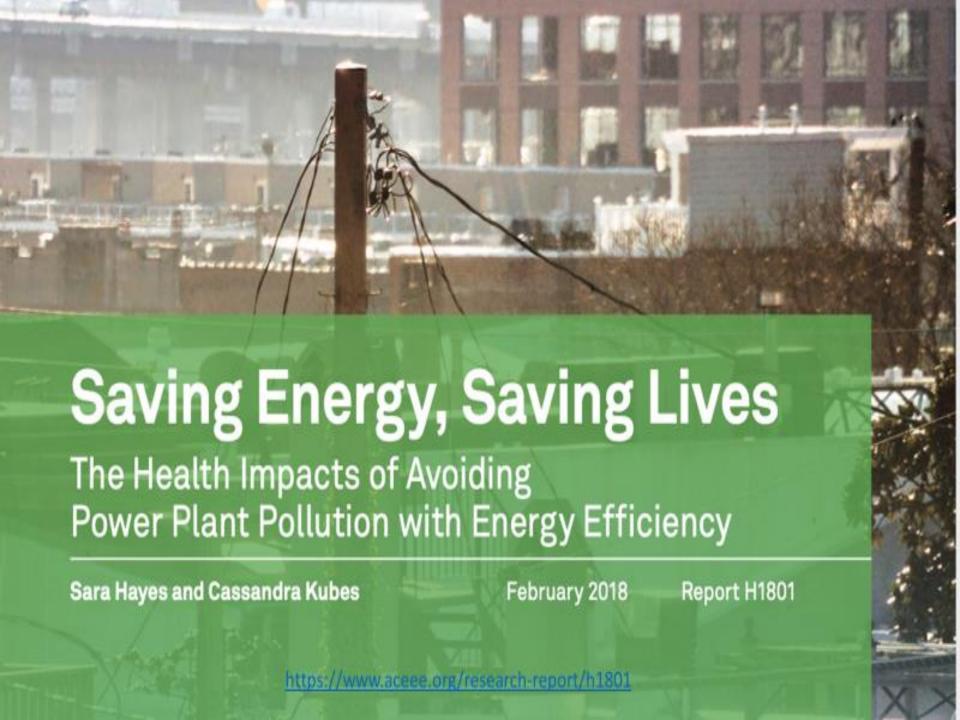


Save Energy. Protect Health.

Reducing annual electricity use by 15% with ENERGY EFFICIENCY would reduce air pollution, and...

- + Save more than SIX LIVES every day
- + Prevent nearly 30,000 ASTHMA EPISODES each year
- + Save Americans up to \$20 BILLION in avoided health harms annually



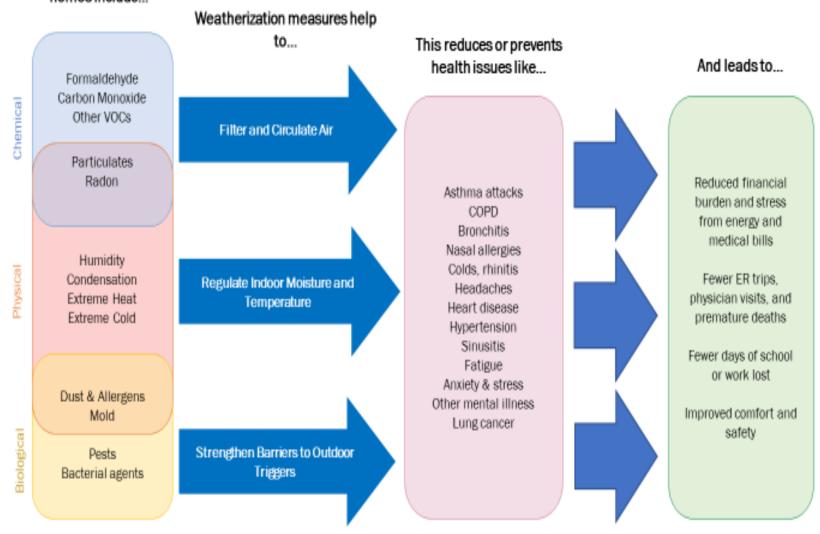


Energy Efficiency Makes Homes Healthier

- Ahrentzen, S., Erickson, J., and Fonseca., E. 2016. "Thermal and Health Outcomes of Energy Efficiency Retrofits of Homes of Older Adults." Indoor Air 26(4):582-593.
- Breysse, J., Dixon, S., Gregory, J., Philiby, M., Jacobs, D., and Krieger, J. 2014. "Effect of Weatherization Combined with Community Health Worker In-Home Education on Asthma Control." American Journal of Public Health 104 (1): e57-e64.
- Barton, A., Basham, M., Foy, C., Buckingham, K., Somerville, M. and the Torbay Healthy Housing Group. 2007. "The Watcombe Housing Study: The Short Term Effect of Improving Housing Conditions on the Health of Residents." Journal of Epidemiology and Community Health 61(9):771-777.
- Breysse, J., Jacobs, D., Weber, W., Dixon, S., Kawecki, C., Aceti, S., and Lopez, J. 2011. "Health Outcomes and Green Renovation of Affordable Housing." Public Health Reports 126 (Suppl I): 64-75.
- Francisco, P., Jacobs, D., Targo, L., Dixon, S., Breysse, J., Rose, W., and Cali, S. 2016. "Ventilation, Indoor Air Quality, and Health in Homes Undergoing Weatherization," Indoor Air 27 (2): 463–477.
- Frey, S., Destaillats, H., Cohn, S., Sherry Ahrentzen, and Fraser., M. 2014. "The Effects of an Energy Efficiency Retrofit on Indoor Air Quality." Indoor Air 25(2): 210-219.
- Howden-Chapman, P., Matheson, A., Crane, J., Viggers, H., Cunningham, M., Blakely, T., Cunningham, C., Woodward, A., Saville-Smith, K., O'Dea, D., Kennedy, M., Baker, M., Waipara, N., Chapman, R., and Davie, G. 2007. "Effect of Insulating Existing Houses on Health Inequality: Cluster Randomised Study in the Community." British Medical Journal 334 (460): 1-9.
- Leech, J., Raizenne, M., and Gusdorf, J. 2004. "Health in Occupants of Energy Efficient New Homes." Indoor Air 14 (3): 169-173.
- Lloyd, E. McCormack, C., McKeever, M., and Syme, M., 2008. "The Effect of Improving the Thermal Quality of Cold Housing on Blood Pressure and General Health: A Research Note." Journal of Epidemiology and Community Health 62(9):793-797.
- Norton, R. and Brown, B. 2014. "Green & Healthy Homes Initiative: Improving Health, Economic, and Social Outcomes Through Integrated Housing Intervention." Environmental Justice. 7 (6): 1-7
- Osman, L., Ayres, J., Garden, C., Reglitz, K., Lyon, J., and Douglas, J. 2010. "A Randomised Trial of Home Energy Efficiency Improvement in the Homes of Elderly COPD Patients." European Respiratory Journal 35 (2): 303-309.
- Rose, E., Hawkins, B., Tonn, B., Paton, D., and Shah, L. 2015. Exploring Potential Impacts of Weatherization and Healthy Homes Interventions on Asthma-related Medicaid Claims and Costs in a Small Cohort in Washington State. Oak Ridge, TN: Oak Ridge National Laboratory.
- Wallner, P., Munoz, U., Tappler, P., Wanka, A., Kundi, M., Shelton, J., and Hutter, H. 2015. "Indoor Environmental Quality in Mechanically Ventilated. Energy-Efficient Buildings vs. Conventional Buildings." International Journal of Environmental Research and Public Health 12(11):14132-14147.
- Wilson, J., Dixon, S., Jacobs, D., Breysse, J., Akoto, J., Tohn, E., Isaacson, M., Evens, A., and Hernandez, Y. 2014. "Watts-to-Wellbeing: Does Residential Energy Conservation Improve Health?" Energy Efficiency 7 (1): 151-160.

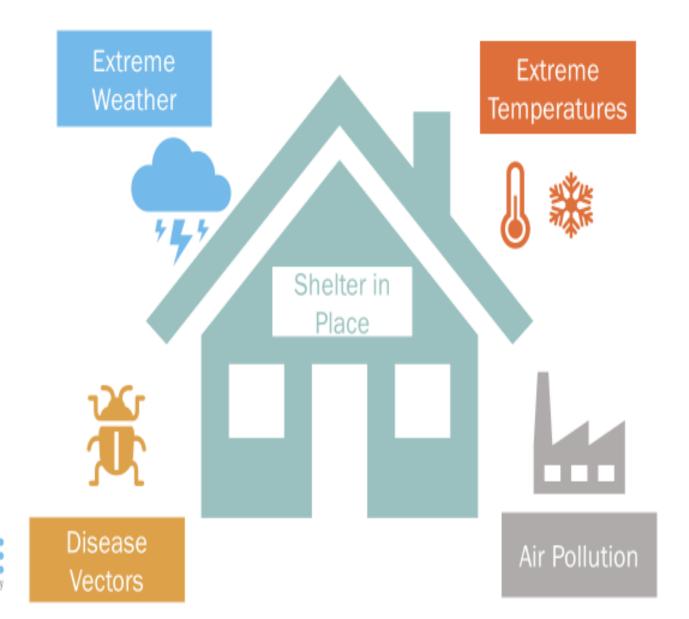


Common health stressors in homes include...





Weatherized Homes Are More Resilient to Climate Change



Opportunities for Growth through Incorporation of Health into our Work

Looking at energy efficiency as an opportunity to protect health opens doors

- New Funding
- Marketing
- New Services
- Reduce Deferrals
- Increase Referrals
- Partners as Advocates
 - Hospitals
 - Insurers
 - Public Health departments



Policy Advocacy

ENERGY EFFICIENCY POLICIES

- EERS
- Utility Targets
- Expanded Cost Benefit Tests

HEALTH POLICIES

- Medicaid changes
- CHIP
- Health in All Policies



Program Design and Implementation

Some places to start....

- Track your program's health outcomes
 - Measure the outcomes
 - Monetize the impacts
- Identify needs of the community
 - Disease burdens Asthma, other respiratory illnesses
 - Income inequalities Energy burdens
 - Housing quality/inadequacy issues
 - Threat exposures Extreme heat/cold, storms/blackouts, air pollution
 - Population vulnerabilities
- Seek Health Related Funding





MAKING HEALTH COUNT:

Monetizing the Health Benefits of In-Home Services Delivered by Energy Efficiency Progr Sara Hayes, Cassandra Kubes, and Christine Gerbode

RESEARCH REPORT **MAY 2020**

aceee.org/research-report/h2001

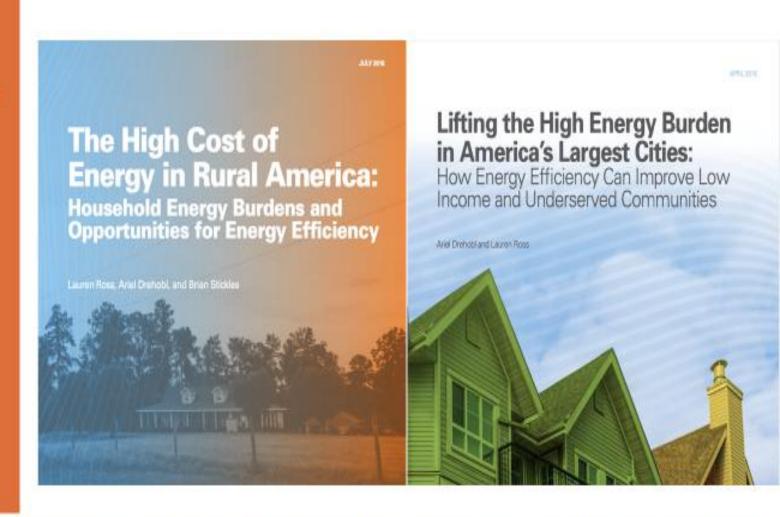
RESEARCH REPORT

Protecting the Health of **Vulnerable Populations** with In-Home Energy Efficiency: A Survey of Methods for Demonstrating Health Outcomes

October 22, 2019



Identify Needs of Community and Design Program to Meet Those Needs



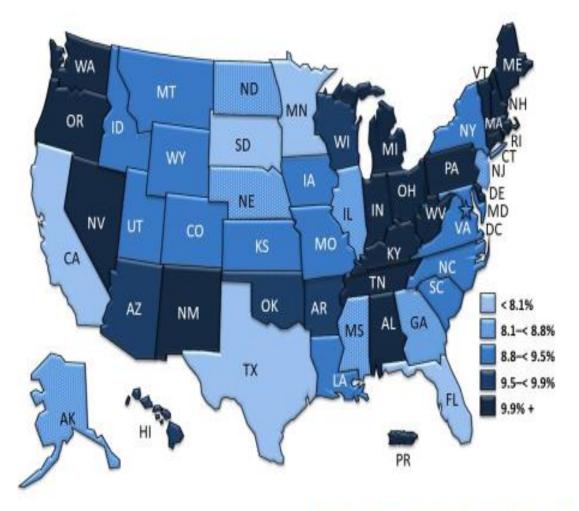


https://www.aceee.org/research-report/u1806

https://www.aceee.org/research-report/u1602

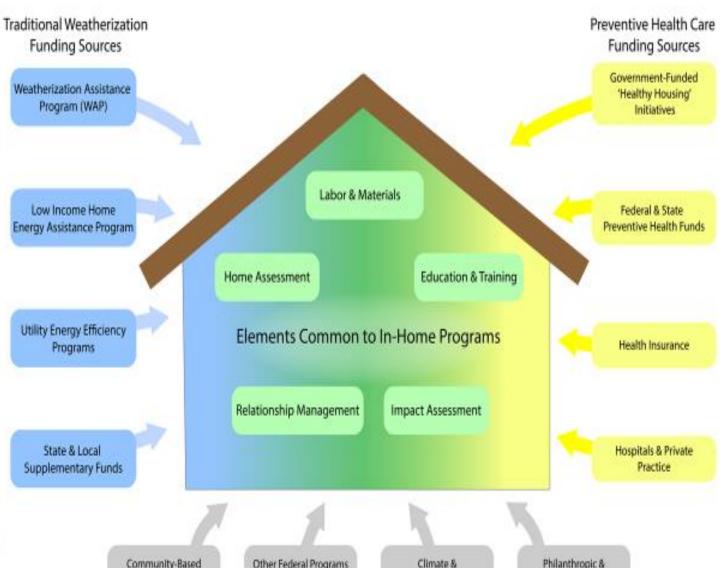
Identify Needs of Community and Design Program to Meet Those Needs

Adult Asthma Prevalence (%) by State or Territory





Seek Health Related Funding



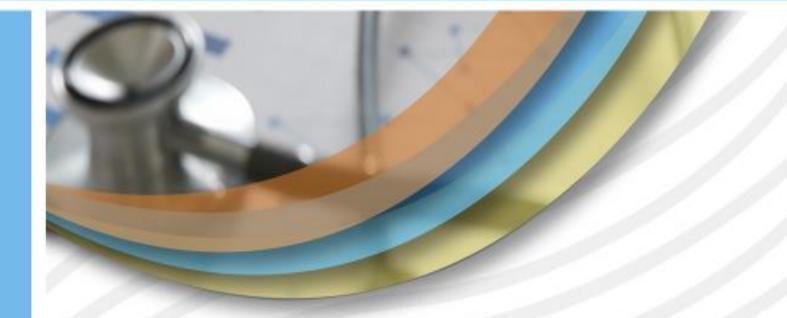


Community-Based Organizations Other Federal Programs (HUD, USDA, EPA, etc.)

Climate & Resiliency Funding Philanthropic & Other Private Funds

Examples of Other Potential Funding Sources

Seek Health Related Funding



BRAIDING ENERGY AND HEALTH FUNDING FOR IN-HOME PROGRAMS: FEDERAL FUNDING OPPORTUNITIES

By Sara Hayes and Christine Gerbode

RESEARCH REPORT
JULY 2020



ACEEE Is Kicking Off a Program Design Guidance Initiative This Month

- Initiative to develop targeted guidance and training materials focused specifically on details of program design
- We'll be broadly sharing a short survey for Health + EE program implementers (or those interested in developing these programs) to collect info on needs and questions, and recruit a cohort for feedback and special training sessions
- Reach out to Christine Gerbode at <u>cgerbode@aceee.org</u> to get involved!





Thank you!

Please reach out with questions, comments, or feedback to Shayes@aceee.org





Kalli Solby
International WELL Building Institute





MEET YOUR

PRESENTER:



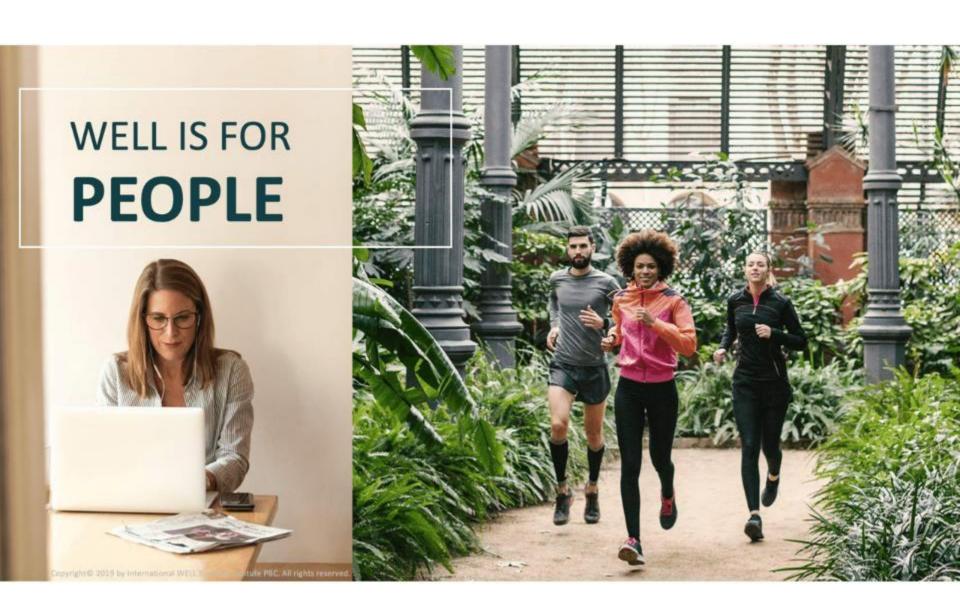
KALLI SOLBY

WELL AP

Senior Analyst, Commercial Team
Sector Lead - Multifamily Residential

kalli.solby@wellcertified.com





We spend approximately 90% of our time indoors, and our environment is the largest determinant of our overall health.





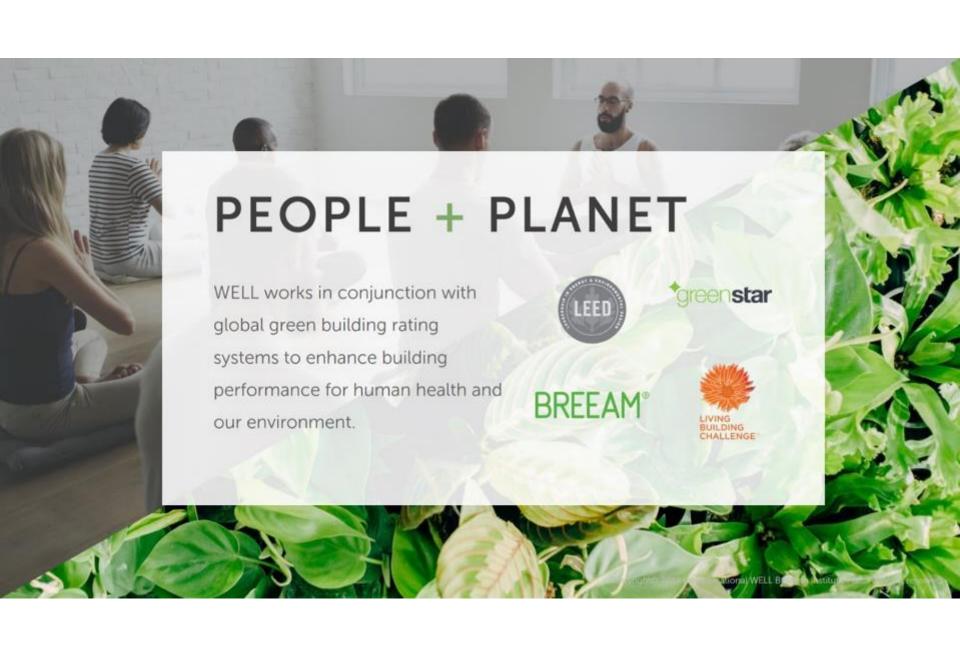


That means our health begins at home – and at work, and in all of the spaces we frequent on a daily basis.

WHAT DETERMINES THE STATE OF HEALTH?







PEER REVIEWED

IWBI undertook a comprehensive expert peer review process, which included three phases—a scientific, medical and building expert review—and culminated in the release of the WELL Building Standard.









EVOLUTION OF WELL











2014

IWBI launches the WELL Building Standard™ after a sixyear, expert peer review process that spanned three phases: scientist, practitioner and medical.



With the debut of the WELL Community Standard™ pilot,

IWBI expanded its scope to set outcomes and the latest a new global benchmark for healthy communities at the district-scale.

2018

Condensing learnings from WELL users, project research, IWBI rolls out the WELL v2™ pilot.

2019

Following a year-long pilot with global companies, IWBI rolls out the WELL Portfolio program to help organizations scale WELL and the impact of their health strategies.

A COMPREHENSIVE APPROACH TO **WELL**-BEING

















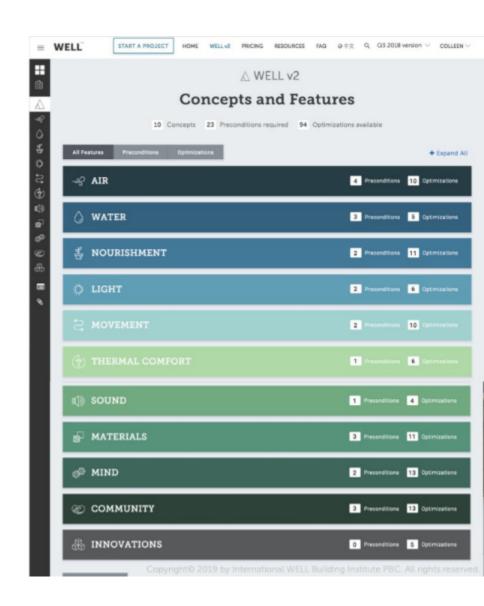






DYNAMIC SCORECARD

- Leverage the WELL v2 digital platform to create a custom scorecard
- Enter you project details and browse a selection of suggested features tailored to help you achieve your project's unique goals.



WELL: POINTS-BASED SCORING



WELL Silver Certification 50 points



WELL Gold Certification 60 points



WELL Platinum Certification 80 points

VERIFIED PERFORMANCE

WELL prioritizes accountability through a data-driven performance review and on-site environmental assessment.

ONSITE TESTING

+

PERFORMANCE REVIEW

=

PERFORMANCE VERIFICATION



DEDICATED SUPPORT STRUCTURE

Your WELL coaching contact is matched to you after you register your project. They provides strategic oversight and support throughout the WELL Certification process.





WGBC Report: Doing Right by Planet and People









ASID, WELL Platinum Certified (Washington, DC)

"ASID's new office headquarters was designed for environmental sustainability, and health and wellness, with a focus on indoor air quality, employee satisfaction, and productivity. In their new office, employee absenteeism has decreased by 19% and presenteeism by 16%."

Cundall, WELL Gold Certified (London, UK)

"Cundall's new office, which focused on improved indoor air quality, including continuous monitoring of carbon dioxide (CO2) and volatile organic compounds (VOCs), has saved the company £200,000 due to a reduction of four sick days per year per employee and a 27% reduction in staff turnover. WELL Certification increased the project cost by 3.6%. Based on the above noted savings, these costs had a return on investment of less than two months."

Landsec, WELL Silver Certified (London, UK)

"Landsec's new London workplace prioritises in-person collaboration, health and wellbeing, and indoor environmental quality within a green building. The percentage of employees feeling that the space allows them to work productively rose by 30% after occupying the new space. This high level of project and employee performance was realised with a less than 3% increase in project cost."

http://www.worldgbc.org/news-media/doing-right-planet-and-people-business-case-health-and-wellbeing-green-building

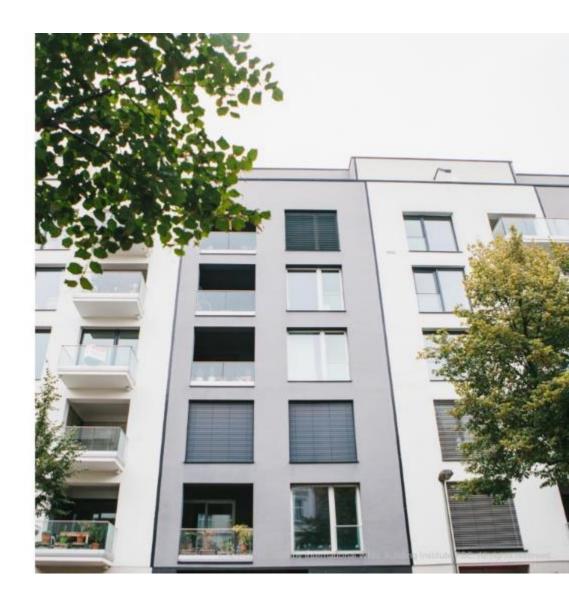
LIVING WELL: MULTIFAMILY RESIDENTIAL

FOR RESIDENTS

- · Health-focused environment
- · Positive impact on health
- · Improved energy and quality of sleep

FOR PROPERTY

- · Recognition and market differentiation
- · Increase in value



ENTERPRISE COMMUNITY PARTNERS & IWBI

ADVANCING HEALTH THROUGH AFFORDABLE HOUSING



Creating a streamlined criteria, blending planetary and human health strategies into a single framework for affordable housing.





MORRIS AVE. CASE STUDY



Image by Construction. Management & Development Inc.

2264 Morris Avenue, Bronx, NY

- **Developer:** Construction Management & Development Inc.
- Size: 98,926 sq. ft.
- Certification Level: WELL Silver (v1)
- Key health and wellness features: movement, nourishment, community building

"2264 Morris enables, uplifts and empowers residents and the neighborhood from within by providing meaningful programming, and healthy, nourishing living spaces"

COLUMBIA SQUARE CASE STUDY



Image by Columbia Square Living

Hollywood Proper at Columbia Square

• **Developer:** Kilroy

• **Size:** 292,000 square feet

• Certification Level: WELL Silver (v1)

 Key health and wellness features: daylight/extensive glazing, ventilation/air quality, noise abatement, biophilic design, natural materials, filtered water

"The building was 80 percent occupied six months after opening, according to the most recent available data. Units command top-of-market rents in Hollywood, which have not been attainable for that area in recent years" – Sara Neff, SVP Sustainability

ESSEX ON THE PARK CASE STUDY



Image by Rent Essex

Essex on the Park at South Loop, Chicago

Developer: Oxford Capital Group

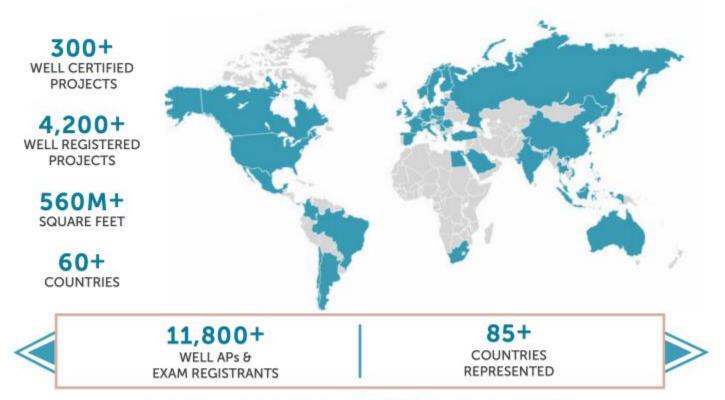
• **Size:** 577,735 square feet

Certification Level: WELL Silver (v1)

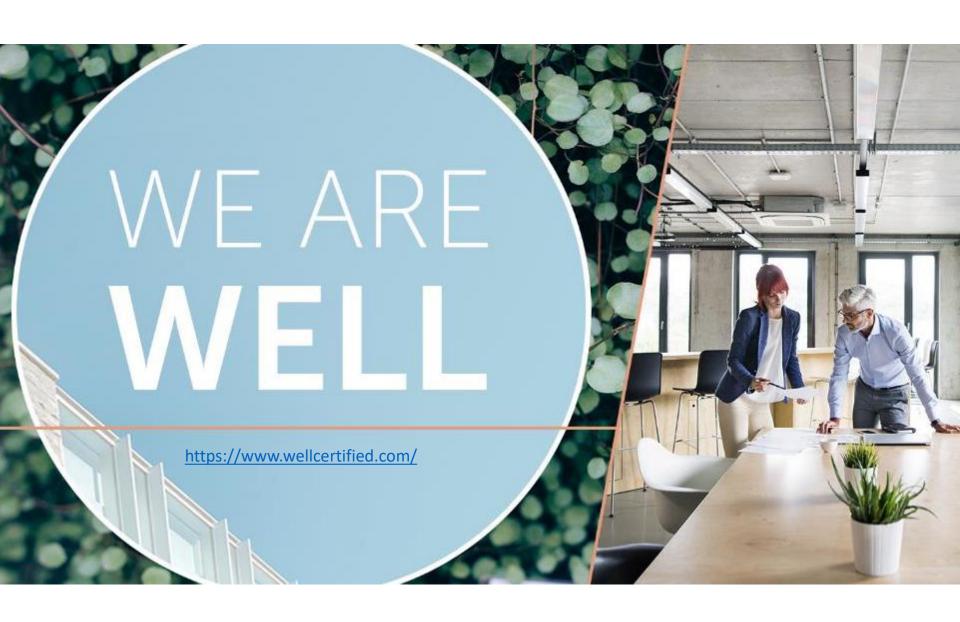
 Key health and wellness features: four-story winter garden to bring nature indoors, roller shades to regulate residents' circadian rhythm and chef-led nourishment discussions

Upon receiving certification: more than half of the units at Essex on the Park are leased [in July] according to a spokeswoman, up from 13 percent when the building opened

WELL AROUND THE WORLD



Numbers as of Jun. 11, 2020 | See wellcertified.com for the latest statistics





Ruth Ann Norton *Green & Healthy Homes Initiative*



Better Buildings Residential Network Webinar: The New Focus on Health in Buildings: Where Are We Now?

July 9, 2020

Ruth Ann Norton
President & CEO



Centering Racial Equity in Our Mission and Vision

GHHI Mission Statement

The Green & Healthy Homes Initiative is dedicated to addressing the social determinants of health and the advancement of racial and health equity through the creation of healthy, safe and energy efficient homes. By delivering a standard of excellence in its work, GHHI aims to eradicate the negative health impacts of unhealthy housing and unjust policies for children, seniors and families to ensure better health, economic and social outcomes with an emphasis on black and brown communities.

Building Cross Sector Partners with Energy, Health and Housing - Mutual Benefits

Achieving Health and Social Equity through Housing:

Understanding the Impact of Non Energy Benefits in the United States







INPUT



Comprehensive Intervention

Energy Efficiency Weatherization Healthy Homes ENERGY OUTPUTS

NON-ENERGY OUTPUTS

> ENERGY BENEFITS

NON-ENERGY BENEFITS

LONG TERM IMPACTS

- reduced kWh consumed
- · reduced energy demand
- improved air quality
- · increased thermal comfort
- reduced toxins
- · improved service reliability
- reduced system maintenance needs
- environmental quality
- occupant health
- family economic security
- neighborhood quality improvement
- reduced health disparities
- school attendance
- economic productivity

The GHHI Model: Address the whole home

Align

services & funding



Braid

relevant resources

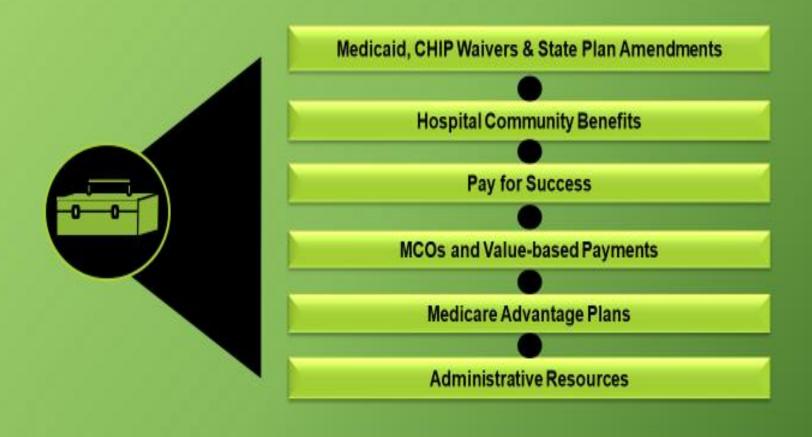


Coordinate

service delivery



Secure Health Care Sector Investments in Energy and Housing Projects



Make the Case to Healthcare Partners to fund lead and asthma interventions with energy efficiency measures

Lead Poisoning Prevention

Environmental Control of Asthma



Impacts during childhood

- 700% increase in school drop out rate
- 600% increase risk of juvenile delinquency



Impacts in adulthood

- Diminished earnings from lower IQ
- Higher likelihood of incarceration

\$1 invested in preventive remediation



\$17 - \$221 return on investment

Increased lifetime earnings of \$1,024,000 per child if lead poisoning prevented

Asthma results in \$50.1B in annual medical costs of costs are tied to triggers in the home







Cost of ER visit \$500-\$1,000



Cost of hospitalization \$7,500-20,000



\$1 invested in asthma interventions \$5.30 - \$14 return on investment

Sources: HUD, Gould, RWJ Commission on Building a Healthier America, HHS economic review of published studies

Medicaid/CHIP Investments in Preventive Housing Interventions

Michigan

 \$119 million in CHIP funds for lead hazard remediation and related services; workforce development

Maryland

 \$14.4 million in CHIP funds for lead inspection and hazard remediation and preventive asthma services

Ohio, Indiana & Pennsylvania

 \$5 million (OH), \$3 million (IN) and \$14 million (PA) in CHIP funds for lead testing and remediation

Missouri

Medicaid funding allowable for Asthma resident education;
 Environmental assessment services

Oregon

 Rule 1115 Waiver allowing for flexible services including asthma home visiting resident education

Rhode Island

Rule 1115 Waiver allowing for lead remediation

Virginia

Rule 1115 Waiver for asthma interventions

GHHI Innovative Healthcare Financing Projects





Funders



















- . Allegheny County UPMC and Allegheny Co. Health Department
- . Baltimore Priority Partners MCO
- Buffalo Oishei Children's Hospital and IHA MCO
- . Chattanooga green | spaces and Erlanger Children's hospital
- Chicago Presence Health, Elevate Energy, & NextLevel MCO
- . Cincinnati People Working Cooperatively
- . Connecticut Medicaid and CT Greenbank
- Grand Rapids Priority Health MCO, Healthy Homes Coalition of West Michigan
- . Houston UnitedHealthcare & Baylor
- . Houston Community Health Choice MCO
- Indiana Indiana Joint Asthma Coalition
- Iowa Healthy Homes Des Moines
- . Marin Contra Costa Health Services & MCE
- Memphis Le Bonheur Children's Hospital & UnitedHealthcare, Amerigroup, and BlueCare
- . Minneapolis MN Energy Efficiency For All
- New York City Affinity Health Plan, AlRnyc, & AEA
- New York City LISC
- . New York Medicaid and NYSERDA
- Oregon Community Services Consortium
- . Philadelphia National Nursing Care Consortium
- Richmond City Health District
- . Rhode Island State Medicaid and Integra Accountable Entity
- . San Antonio SA Asthma Collaborative
- · Salt Lake University of Utah Health Plans and Salt Lake County
- Springfield Health New England MCO, Baystate Health, Public Health Institute of Western Mass
- Worcester UMass Memorial Hospital

Illinois ComED Utility Project

Project Goal: To develop a coordinated service delivery model that achieves a whole-home retrofit for utility customers with significant health, safety and energy needs and that leverages both time and financial resources of ComEd and AMITA Health.

Intervention Design: Targets high-utilizing asthma patients of local hospital who are uninsured or underinsured and most likely to also need energy efficiency improvements. Exploring if targeting multi-family buildings with multiple asthma patients for efficiency opportunities.

Funding: Pilot combines community benefit dollars from local hospital system, utility R&D dollars to investigate new service delivery models, and local grants

Results:

- Phase 1 of pilot increased asthma control of 19 of 20 patients
- Phase 1 lacked energy efficiency dollars, which will be addressed via phase 2









Explore State Partnerships - New York State Healthy Homes Project - Integrating Health and Energy

Goal

Build capacity for services throughout the state and design an integrated

delivery model

Outcome

Reduce energy usage, asthma episodes, household injury and lead

poisoning and related energy and medical costs

Approach

Evaluate the possibility of supporting energy, health and housing services

through sustainable public and private funding.

Commitment

\$10,000,000 in NYSERDA funding for 500 unit pilot implementation

Partners

NYSERDA, NYSDOH, NYHCR



National, State and Local Best Practices to Advance Healthy Homes - Possible State Funding Partners

State of Michigan - State Lead Fund and State Lead Law housing standards (\$10 million commitment from Governor to seed the Lead Fund)

State of Pennsylvania - \$1.1 billion lead and asbestos remediation funding

Other Funding Opportunities for Energy and Healthy Homes

Secure Innovative Funding to Help Solve Local Funding Gaps for lead, asthma triggers, radon, asbestos, mold and other home injury hazards

New York
Attorney General
Funds
Buffalo
\$2.3M

Rhode Island Attorney General Funds

\$1.2M

MD Public Service Commission Utility Merger Funds Resulting In...

New York
Attorney General
Funds
Syracuse
\$1M

Austin Energy Holly Settlement Funds

\$1.2M

Maryland Department of Housing & Community Dev. \$19M

New York
Attorney General
Funds
Rochester
\$1M

Non-traditional funding sources that enable health and energy upgrades to occur sideby-side

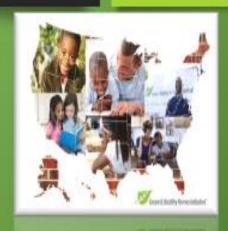
Baltimore City
Housing & Community
Dev.
\$19.8M

National, State and Local Best Practices to Advance Healthy Homes - Energy and Health

Explore partnerships with local HUD lead grantees - Increased budgets for HUD's Office of Lead Hazard Control and Healthy Homes from \$110M (FY2017) to \$304M (FY2020); \$425M in proposed budget for FY2021

GHHI Lead Funding Toolkit of over 40 lead funding resources
Go to: https://www.greenandhealthyhomes.org/ghhi-toolkits/ -

Energy Efficiency For All (EEFA) – Developing local energy, housing and health collaboratives in 12 states – unique goals for each collaborative which center on increasing racial equity and achieving climate goals through improved energy-efficiency in multi-family housing.





Use Local Health, Energy and Housing Integration - GHHI Greater Syracuse

Before GHHI Greater Syracuse & Partners

- Owned by a single-mother with 2 children
- · Furnace not working & little insulation
- Asbestos around the furnace
- · Electrical hazards
- Peeling lead paint, inoperable windows
- · Collapsing back porch and front steps

After GHHI Greater Syracuse & Partners

- Asbestos removed
- A new furnace & hot water heater installed
- Insulation and other air sealing
- · Electrical Improvements
- · Remediation of lead paint hazards & new windows
- · New front steps & rear porch for fall prevention
- · CO detectors and fire alarms installed

GOING GREEN

Initiative works to make low-income homes environmentally friendly



> PACE Inc. representative Sally Ward, left_presents homeowner Taresha Keene with a bucket of home solely items donated by the Home Depot, including sessic detectors for her children's norms. (Bliny Bunch, Staff Photo Sources: Rillery, Bunch. The Stand, Winter 2/0 (6) Partners: Home
HeadQuarters, PEACE, Inc.,
Onondaga County Health
Department, & Onondaga
County Community
Development Division's Lead
Hazard Reduction Program,
the Home Depot, and
applicant.











HUBS Baltimore Aging in Place Model: Housing Upgrades for Seniors (Health and Energy)

Founding Organization

Organizes referral process, develops trainings for partners, and hosts leadership meetings



Leadership Team

Performs home remediation and installs fall prevention measures









HUBS

Provides referrals into HUBS, conducts individualized needs











assessment and assists with service referral process







GEDC



Evaluator

Currently evaluating cost savings and impact of program



Home Safety Improvements

Grab bars Handrails



Home Rehab Services

Roof repair Plumbing repair



Weatherization and **Energy Efficiency Services**

> Insulation Weather stripping LED Installation

The COVID-19 Crisis is Highlighting Inequities

 How Are We Adapting to Better Address the Health and Energy Needs of Low Income Families and Communities



National, State and Local Best Practices to Advance Healthy Homes - Adapt

Explore use of CARES Act Funds for Housing Interventions (CRF and CDBG-CV) (Lead, asthma, household injury, radon, Aging in Place)

Using Innovation to Solve COVID-19 Barriers to Healthy and Energy Efficient Homes

- Virtual housing assessments and inspections
- Remote resident education and medical case management
- · No contact prevention supplies delivery
- Leveraging and coordinating housing intervention and weatherization funding sources









Better Buildings Summer Webinar Series

NEXT-GENERATION BUILDING PERFORMANCE POLICIES:

MAXIMIZING ENERGY SAVINGS AND ENVIRONMENTAL IMPACTS

Thu, July 16, 2020 | 1:00 - 2:00 PM ET

REGISTER TODAY



EVERYONE HAS A DATA CENTER:

HOW TO BE AN ENERGY CHAMPION FOR YOURS

Tue, July 28, 2020 | 3:00 - 4:00 PM ET

REGISTER TODAY



PROGRAM DESIGN WITH EVERYONE IN MIND:

LOW-INCOME SOLAR PROGRAM STRATEGIES

Thu, July 9, 2020 | 3:00 - 4:00 PM ET

REGISTER TODAY



STRATEGIES TO COMBINE ENERGY + HEALTH UPGRADES IN MULTIFAMILY HOUSING

Thu, July 21, 2020 | 1:00 - 2:00 PM ET

REGISTER TODAY



SUCCEED WITH SUBMETERING:

HOW TO MAKE THE BUSINESS CASE

Tue, Aug 11, 2020 | 1:00 - 2:00 PM ET

REGISTER TODAY



THE DYNAMIC DUO:

UNLEASH PUBLIC SECTOR ENERGY SAVINGS WITH FINANCING AND TECHNICAL ASSISTANCE

Tue, July 14, 2020 | 3:00 - 4:00 PM ET

REGISTER TODAY >



CASE IN POINT:

OREGON'S RECENT EFFORTS TO REDUCE PLUG LOAD ENERGY CONSUMPTION

Wed, July 22, 2020 | 1:00 - 2:00 PM ET

REGISTER TODAY

https://betterbuildingssolutioncenter.energy.gov/better-buildings-webinar-series

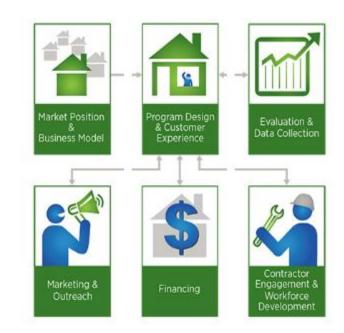




Explore the Residential Program Solution Center

Resources to help improve your program and reach energy efficiency targets:

- Handbooks explain why and how to implement specific stages of a program.
- Quick Answers provide answers and resources for common questions.
- Proven Practices posts include lessons learned, examples, and helpful tips from successful programs.
- Technology Solutions NEW! present resources on advanced technologies, HVAC & Heat Pump Water Heaters, including installation guidance, marketing strategies, & potential savings.



https://rpsc.energy.gov





Thank You!

Follow us to plug into the latest Better Buildings news and updates!



Better Buildings Twitter with #BBResNet



Better Buildings LinkedIn



Office of Energy Efficiency and Renewable Energy Facebook

Please send any follow-up questions or future call topic ideas to:

bbresidentialnetwork@ee.doe.gov



